

LANDSCAPE PLANS FOR THE DEVELOPMENT OF
A LARGE AMERICAN ESTATE IN THE ENGLISH STYLE

by

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INTRODUCTION

The purpose of the thesis is to determine the advisability of using the English style of landscape architecture in developing a large estate near Manhattan, Kansas.

No limitations, either structural or financial, were set; consequently the designer was given opportunity to include a great many landscape features that would usually seem extravagant in a midwest development.

Although the problem itself is purely hypothetical, it was designed from an accurate topography and many studies of the property were made directly in the field.

GENERAL METHOD

A modern landscape architect, in designing an estate, must choose some one prevalent style and then follow rather closely the requirements of that particular style.

The English style of architecture and landscape architecture was chosen because it is adaptable and is thought to lend itself particularly well to midwest conditions.

Architectural laws demand a certain amount of level

space immediately about the house and various features, such as the gardens and sports areas require fairly level ground farther away. The site which was finally selected is approximately one hundred fifty acres in size and fulfills as nearly as possible all of the requirements for such a problem. It lies to the west of Manhattan, Kansas and is bounded on the south by Highway South 40, on the west by Wild Cat Creek, on the east by Evergreen Avenue and on the north by Sunset Cemetery.

In general, the topography is rolling but the area is broken by deep ravines which are heavily wooded with oaks, elms and shrubby undergrowth. The total difference in elevation on the property is about 179 feet.

Four sketches of tentative layouts were made showing the location and orientation of the house, location of entrances, drives, service areas, gardens, recreational areas and the larger tree masses.

From these preliminary studies a general plan was made which was more accurate in detail and showed clearly the relationship of the house design to the grounds. The most important views from the house were to the southeast and southwest; consequently the house and gardens were so oriented as to have these views unobstructed and to give

them due emphasis (Plate I).

This preliminary study was then transferred to German ripple paper, traced in ink, and rendered in water color (Plate II).

The next step was to make an enlarged drawing of the area adjacent to the house in order to show more clearly the landscape development. The solution of this problem is shown in Plate V. Other plans such as the grading plan and planting plan of the same area were drawn on tracing cloth and rendered in ink. They are shown in Plates VI and VII.

Ninety varieties of trees and shrubs, deciduous and evergreen, were used in the planting plan. All are hardy and otherwise adapted to this section.

SUMMARY

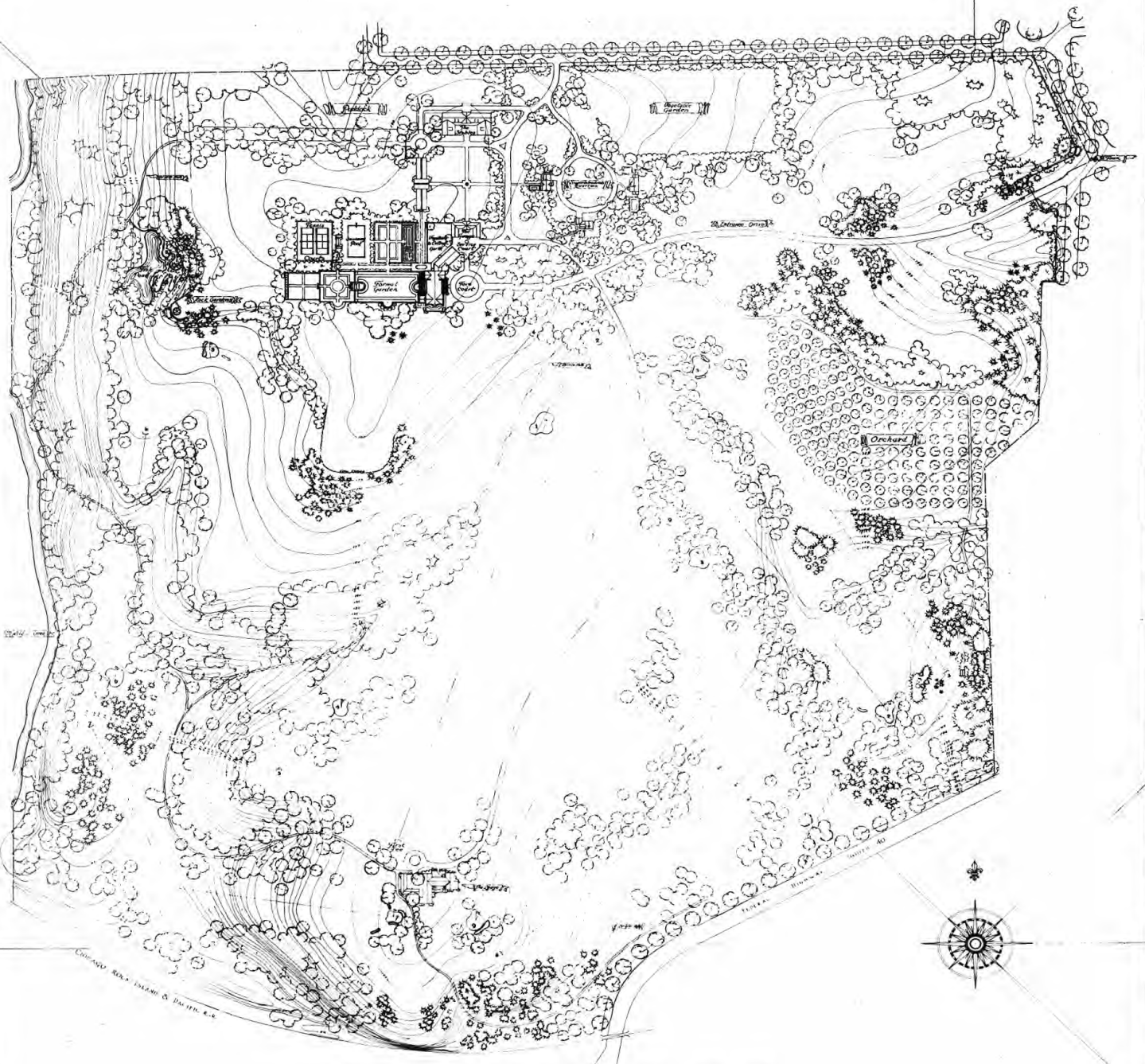
From a utilitarian point of view such a problem as this would seem entirely too pretentious for this section to be of any great value. However, it has been a test to the designer to include so many different elements and still produce a harmonious effect.

This study has convinced the author that for a devel-

opment of this type the English style of landscape architecture, as revised to meet modern needs, is without doubt superior to other styles and should be used extensively in this section of Kansas.

Plate I.

General plan showing topography and landscape development. The original plan was submitted on German ripple paper drawn to the scale one inch equal to one hundred feet and rendered in ink.



GENERAL PLAN FOR WINDERMERE HILLS ESTATE MANHATTAN KANSAS

SUBMITTED AS A PORTION OF A THESIS
FOR MASTER OF SCIENCE DEGREE IN
LANDSCAPE ARCHITECTURE
K-S-C DEPARTMENT OF HORTICULTURE-
MANHATTAN KANSAS - MAY - 25 - 1932

Scale - One Inch Equals One Hundred Feet

HOLE NO.	PAR	GOLF COURSE YARDS	HOLE NO.	PAR	YARDS
1	4	220	18	4	220
2	4	220	19	4	220
3	4	220	20	4	220
4	4	220	21	4	220
5	4	220	22	4	220
6	4	220	23	4	220
7	4	220	24	4	220
8	4	220	25	4	220
9	4	220	26	4	220
10	4	220	27	4	220
11	4	220	28	4	220
12	4	220	29	4	220
13	4	220	30	4	220
14	4	220	31	4	220
15	4	220	32	4	220
16	4	220	33	4	220
17	4	220	34	4	220
18	4	220	35	4	220
19	4	220	36	4	220
20	4	220	37	4	220
21	4	220	38	4	220
22	4	220	39	4	220
23	4	220	40	4	220
24	4	220	41	4	220
25	4	220	42	4	220
26	4	220	43	4	220
27	4	220	44	4	220
28	4	220	45	4	220
29	4	220	46	4	220
30	4	220	47	4	220
31	4	220	48	4	220
32	4	220	49	4	220
33	4	220	50	4	220
34	4	220	51	4	220
35	4	220	52	4	220
36	4	220	53	4	220
37	4	220	54	4	220
38	4	220	55	4	220
39	4	220	56	4	220
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42	4	220	59	4	220
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45	4	220	62	4	220
46	4	220	63	4	220
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49	4	220	66	4	220
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51	4	220	68	4	220
52	4	220	69	4	220
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55	4	220	72	4	220
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57	4	220	74	4	220
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82	4	220	99	4	220
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85	4	220	102	4	220
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146	4	220	163	4	220
147	4	220	164	4	220
148	4	220	165	4	220
149	4	220	166	4	220
150	4	220	167	4	220
151	4	220	168	4	220
152	4	220	169	4	220
153	4	220	170	4	220
154	4	220	171	4	220
155	4	220	172	4	220
156	4	220	173	4	220
157	4	220	174	4	220
158	4	220	175	4	220
159	4	220	176	4	220
160	4	220	177	4	220
161	4	220	178	4	220
162	4	220	179	4	220
163	4	220	180	4	220
164	4	220	181	4	220
165	4	220	182	4	220
166	4	220	183	4	220
167	4	220	184	4	220
168	4	220	185	4	220
169	4	220	186	4	220
170	4	220	187	4	220
171	4	220	188	4	220
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194	4	220	211	4	220
195	4	220	212	4	220
196	4	220	213	4	220
197	4	220	214	4	220
198	4	220	215	4	220
199	4	220	216	4	220
200	4	220	217	4	220
201	4	220	218	4	220
202	4	220	219	4	220
203	4	220	220	4	220

Plate II.

General plan rendered in full water color;
brown and green tones predominating.



GENERAL PLAN FOR WINDERMERE HILLS ESTATE MANHATTAN KANSAS

Scale - One Inch Equals One Hundred Feet

SUBMITTED AS A PORTION OF A THESIS
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LANDSCAPE GARDENING
K-S-C DEPARTMENT OF HORTICULTURE
MANHATTAN KANSAS - MAY - 25 - 1936

HOLE NO	PAR	GOLF WATER	CARR HOLE NO	PAR	YARDS
1	4	400	9	3	946
2	4	400	10	3	400
3	4	400	11	3	315
4	4	400	12	3	400
		TOTAL		37	2778

Plate III.

First floor plan of the house showing the rooms and their relation to the service yard, entrance court and garden terraces. The plan is drawn on tracing cloth to a scale one inch equals sixteen feet.

Plate IV.

First floor plans of the garage, garden houses and dressing rooms. Drawn on tracing cloth to the scale one inch equals sixteen feet.

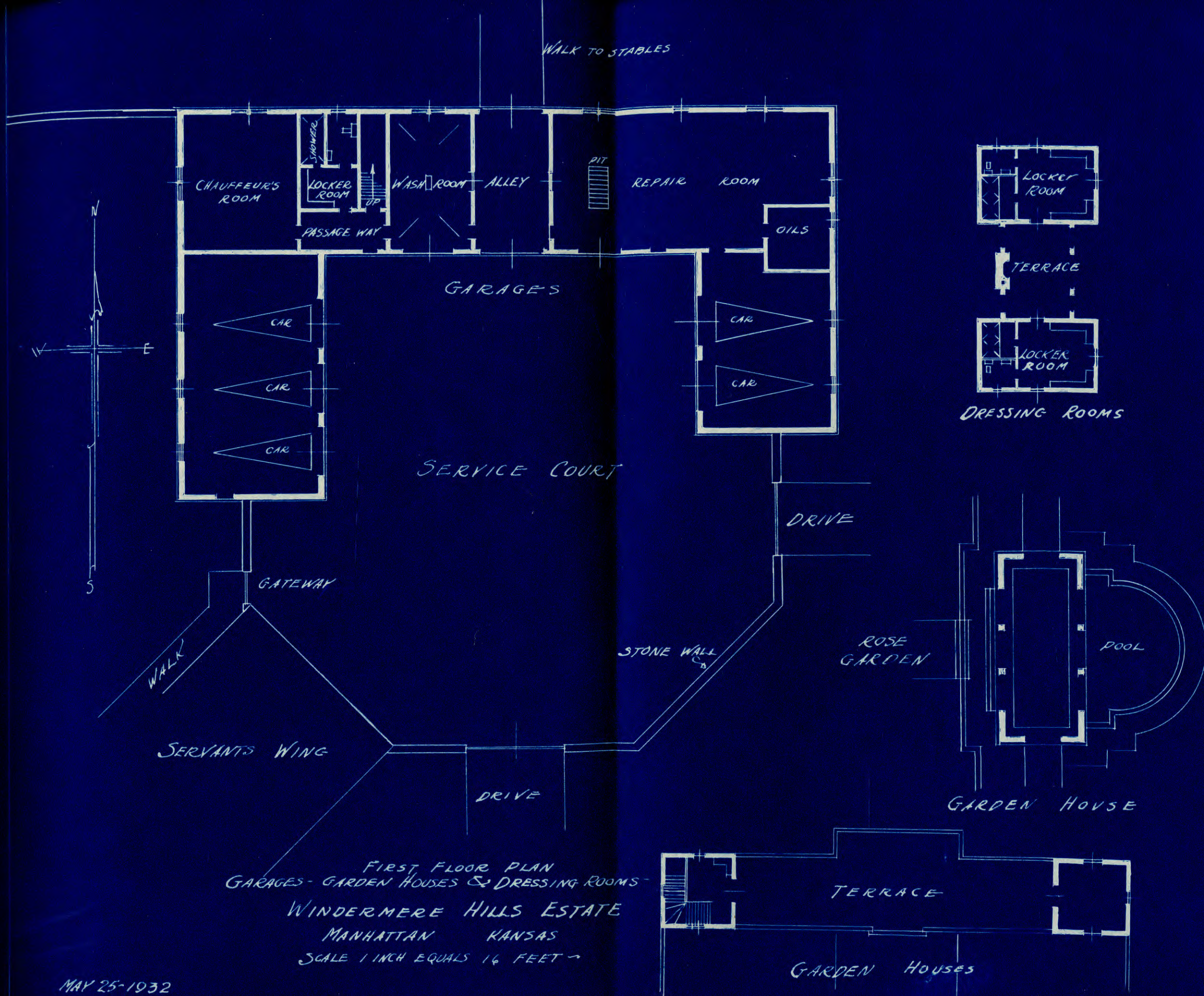
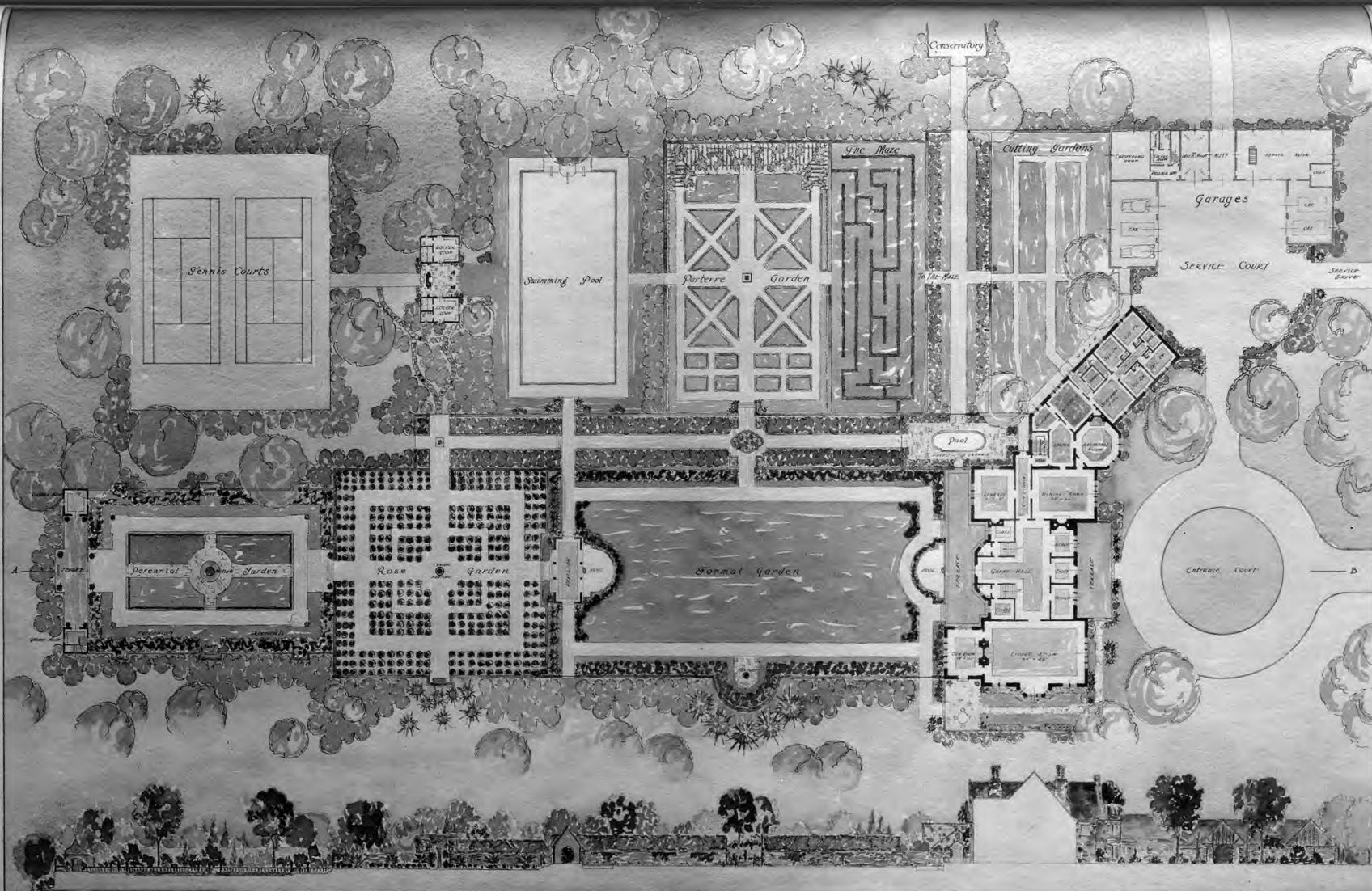


Plate V.

Landscape design of the house and garden area. Drawing submitted on German ripple paper and rendered in full water color. Scale one inch equals sixteen feet. The section AB is taken along the major axis of the house and gardens and shows the differences in elevation of the gardens.



SECTION-AB

LANDSCAPE DESIGN
FOR HOUSE AND GARDEN AREA

WINDERMERE HILLS ESTATE MANHATTAN KANSAS

One Inch Equals Sixteen Feet



Plate VI.

Grading plan of the house area. This plan, drawn on tracing cloth to the scale one inch equals sixteen feet, gives the existing contours as light lines and the proposed contours as heavy lines. Elevation of all the principal points are given directly on the plan.

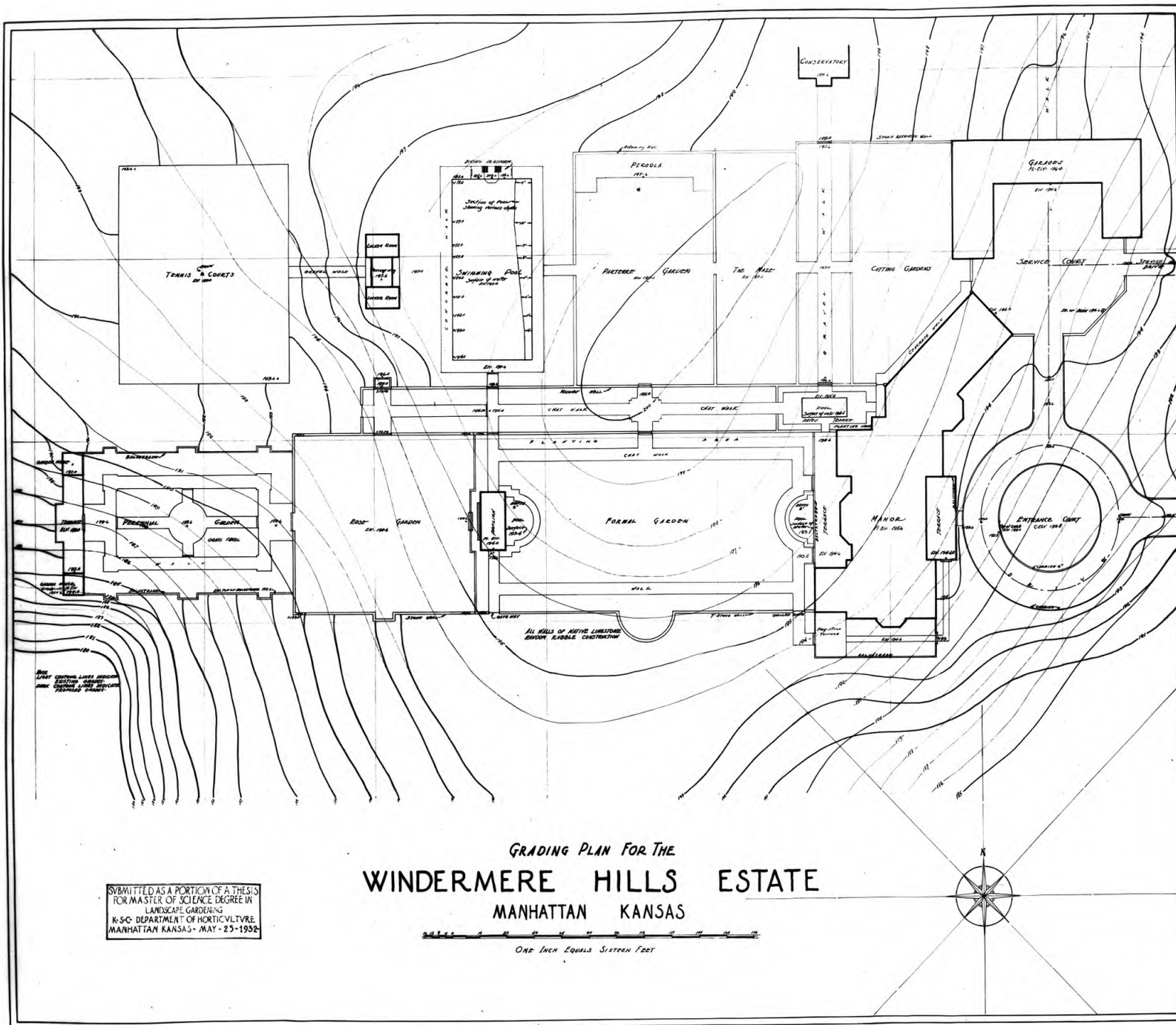


Plate VII.

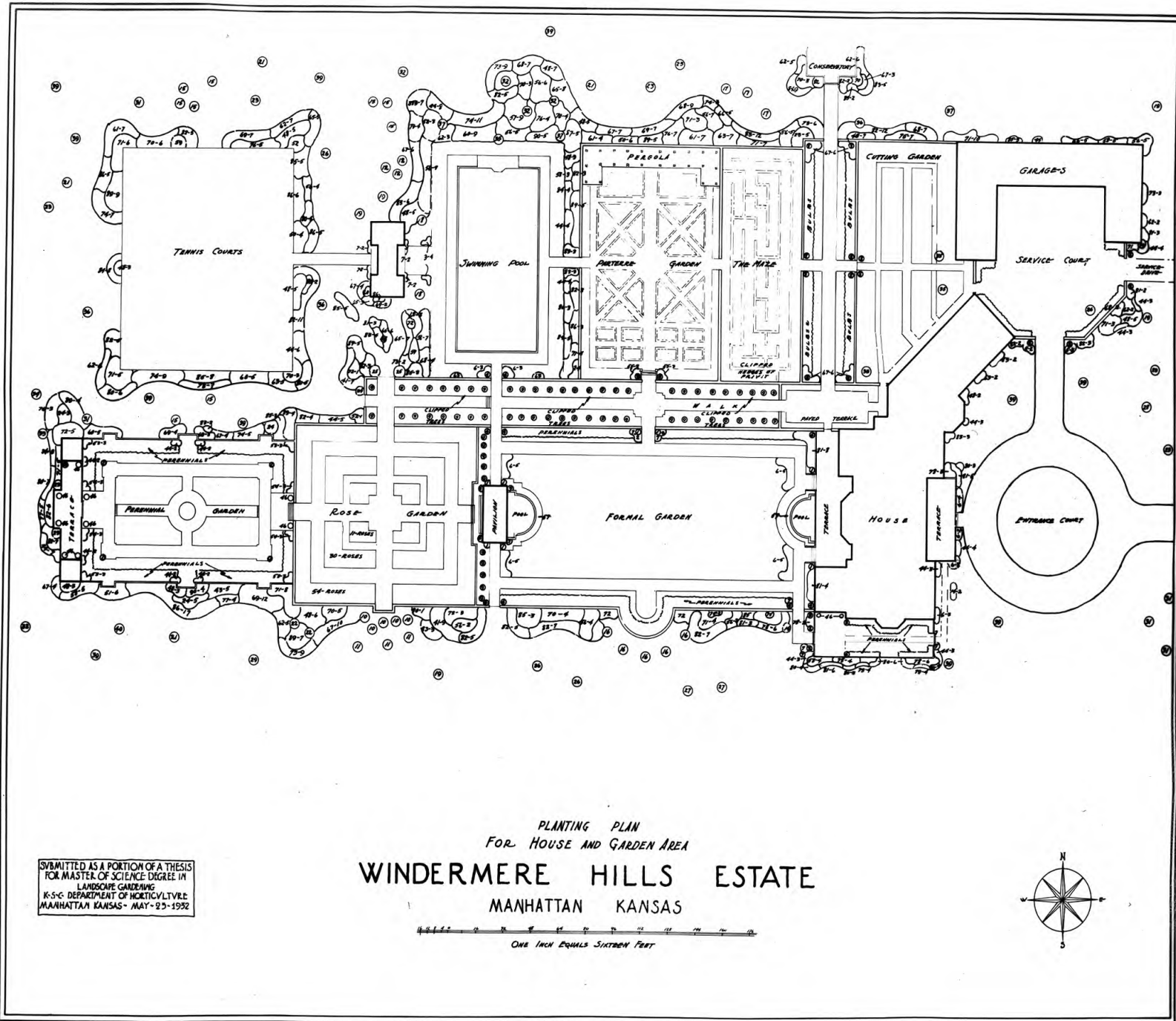
Planting plan of trees and shrubs about the house and gardens. The original was drawn on tracing cloth, to the scale one inch equals sixteen feet, and rendered in ink.

Explanation of Planting Plan

The first figure in a planting bed refers to the numbered list of trees and shrubs which appears on pages 19 to 24 inclusive and indicates the kind of plants used.

The second figure gives the quantity of plants needed.

The circles show trees to be planted.



KEY TO PLANTING PLAN

Trees and Shrubs

1. *Juniperus cannarti*
Cannart Juniper
2. *Juniperus chinensis*
Chinese Juniper
3. *Juniperus communis*
Common Juniper
4. *Juniperus communis suecica*
Swedish Juniper
5. *Juniperus pfitzeriana*
Pfitzer's Juniper
6. *Juniperus sabina*
Savin Juniper
7. *Juniperus sabina tamariscifolia*
Tamarix Savin
8. *Juniperus scopulorum*
Colorado Silver Juniper
9. *Juniperus virginiana*
Red Cedar
10. *Picea canadensis*
White Spruce
11. *Picea excelsa*
Norway Spruce
12. *Pinus banksiana*
Jack Pine
13. *Pinus montana*
Swiss Mountain Pine

14. *Pinus montana* *mughus*
Mugho Pine
15. *Pinus ponderosa*
Western Yellow Pine
16. *Pinus strobus*
White Pine
17. *Pinus sylvestris*
Scotch Pine
18. *Acer campestre*
English Maple
19. *Acer platanoides*
Norway Maple
20. *Acer rubrum*
Red Maple
21. *Catalpa speciosa*
Western Catalpa
22. *Carpinus caroliniana*
American Hornbeam
23. *Celtis occidentalis*
Hackberry
24. *Cercis canadensis*
American Redbud
25. *Crataegus crusgalli*
Cockspur Thorn
26. *Gymnocladus dioica*
Kentucky Coffeetree
27. *Koelreuteria paniculata*
Goldenrain-tree
28. *Liriodendron tulipifera*
Tulip tree
29. *Morus rubra*
Red Mulberry

30. *Ostrya virginiana*
American Hophornbeam
31. *Platanus occidentalis*
American Plane tree
32. *Quercus alba*
White Oak
33. *Quercus imbricaria*
Shingle Oak
34. *Quercus muhlenbergi*
Chinquapin Oak
35. *Quercus palustris*
Pin Oak
36. *Quercus rubra*
Common Red Oak
37. *Quercus velutina*
Black Oak
38. *Tilia platyphyllos*
Bigleaf European Linden
39. *Ulmus americana*
American Elm
40. *Ulmus campestris*
English Elm
41. *Acanthopanax pentaphyllum*
Five-leaved Aralia
42. *Aesculus arguta*
Texas Buckeye
43. *Amorpha fruticosa*
Indigo Bush
44. *Berberis thunbergi*
Japanese Barberry

- 45. *Baltonia latisquama*
Pink Baltonia
- 46. *Buxus sempervirens*
Common Box
- 47. *Calycanthus floridus*
Common Sweetshrub
- 48. *Caragana arborescens*
Siberian Pea-Tree
- 49. *Cornus paniculata*
Gray Dog-wood
- 50. *Cornus sanguinea*
Blood-Twig Dog-wood
- 51. *Cornus stolonifera*
Red Osier Dog-wood
- 52. *Cornus mas*
Cornelian Cherry
- 53. *Cotoneaster acutifolia*
Pekin Cotoneaster
- 54. *Cotoneaster divaricata*
Spreading Cotoneaster
- 55. *Cotoneaster horizontalis*
Rock Cotoneaster
- 56. *Cydonia japonica*
Flowering Quince
- 57. *Daphne cneorum*
Rose Daphne
- 58. *Deutzia scabra*
Fuzzy Deutzia
- 59. *Elaeagnus angustifolia*
Russian Olive
- 60. *Euonymus alatus*
Winged Euonymus

- 61. *Euonymus atropurpureus*
Wahoo
- 62. *Forsythia intermedia*
Border Forsythia
- 63. *Hydrangea arborescens*
Smooth Hydrangea
- 64. *Ilex glabra*
Inkberry
- 65. *Kerria japonica*
Kerria
- 66. *Ligustrum amurense*
Amur Privet
- 67. *Ligustrum ibota*
Ibota Privet
- 68. *Lonicera fragrantissima*
Winter Honeysuckle
- 69. *Lonicera morrowi*
Morrow Honeysuckle
- 70. *Lonicera tatarica*
Tatarian Honeysuckle
- 71. *Philadelphus coronarius*
Sweet Mock Orange
- 72. *Rhamnus cathartica*
Common Buckthorn
- 73. *Rhodotypos kerrioides*
Jetbead
- 74. *Rhus canadensis*
Fragrant Sumac
- 75. *Rhus glabra*
Smooth Sumac

- 76. *Rhus cotinus*
Common Smoketree
- 77. *Rosa rugosa*
Rugosa Rose
- 78. *Spiraea arguta*
Garland Spirea
- 79. *Spiraea billiardi*
Billiard Spirea
- 80. *Spiraea bumalda*
Anthony Waterer Spirea
- 81. *Spiraea thunbergi*
Thunberg Spirea
- 82. *Spiraea vanhouttei*
Vanhoutte Spirea
- 83. *Symphoricarpos racemosus*
Common Snowberry
- 84. *Symphoricarpos vulgaris*
Coralberry
- 85. *Syringa chinensis*
Chinese Lilac
- 86. *Syringa persica*
Persian Lilac
- 87. *Syringa vulgaris*
Common Lilac
- 88. *Tamarix gallica*
French Tamarix
- 89. *Viburnum dentatum*
Arrowwood
- 90. *Viburnum opulus*
European Cranberrybush

ACKNOWLEDGMENT

I am indeed indebted to Professor L. R. Quinlan for his invaluable assistance in outlining the problem and for his constructive criticism of the design; also to the city of Manhattan for their cooperation in the selection of a topography. Professor R. J. Barnett also assisted with many helpful suggestions.

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